

Regeneration and Transport Select Committee

Scrutiny Review of Road and Footpath Investment Opportunities



12 March 2015



Stockton-on-Tees
BOROUGH COUNCIL

Big plans, bright future

Regeneration and Transport Select Committee
Stockton-on-Tees Borough Council
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Contents	Page
Select Committee membership + acknowledgements.....	3
Foreword.....	4
Original Brief.....	5
1.0 Executive Summary and Recommendations.....	6
2.0 Introduction.....	8
3.0 Background.....	8
4.0 Evidence.....	10
Texture Blast.....	11
UltiFastpath.....	12
Surface Dressing.....	12
Velocity Patching.....	13
Joint / Crack Sealant.....	14
Flexi Pave.....	14
Poly-modified Binder.....	15
Other Comments.....	15
Local authority highways maintenance funding: 2015/16 - 2020/21.....	16
Incentive mechanism.....	17
5.0 Conclusion.....	18
Appendix 1.....	20

Select Committee – Membership

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ACKNOWLEDGEMENTS

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Foreword

It is with pleasure that I am able to present the final report of the Regeneration and Transport Select Committee. The Committee has taken its time to investigate the conditions of roads and footpaths in the borough, specifically how they are repaired when needs arise. This has been examined from the points of view of cost and length of inconvenience for repairs to be made.

This is a national concern which has been looked at for a local response. Members were therefore interested to learn of the variety of measures already available to the Council. With such information the Committee was able to ascertain the projected savings from new technology and how this can equate to an increase in area that can be repaired for the same level of spend.

Working with new repair methods should also (at least in the beginning) provide an improved opinion of the Council as the conditions of roads and footpaths have a correlation to the overall satisfaction levels of the Council. As it has an impact on the majority of people either resident or visiting the borough whatever improvements that can be made are recommended to be done.

I want, on behalf of the Committee, to publicly state thanks to everyone involved in the scrutiny review, especially the lead and scrutiny officers, managers and Heads of Service who attended meetings, provided invaluable information and supported the Committee throughout to its final endeavour.

Cllr Perry - Chair

	<p>Councillor Perry Chair – Regeneration and Transport Select Committee</p>		<p>Councillor Norma Wilburn – Vice-Chair Regeneration and and Transport Transport Committee Select</p>
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Original Brief

What are the main issues and overall aim of this review?

There are approximately 836km (520 miles) of adopted highway within the Borough of Stockton. Technical Services have a budget of approximately £1.5m (Council resources and Government grants) above Local Transport Plan funding to deal with potholes and pavements.

Following the EIT Task and Finish Review of Highways it was recommended that a business case for 'invest to save' opportunities for highway revenue was explored as part of the Council's Value for Money programme. This has led to a number of proactive works and measures to be examined and trialled including:

- The use of more innovative materials.
- Retexturing carriageways and roundabouts rather than traditional resurfacing.
- A joint sealing programme for footpath and carriageways.

The aim of the Committee will be to consider:

- Where to target investment.
- What the additional resources can achieve.
- The level of investment required in future years.
- What else could be achieved?

The Committee will undertake the following key lines of enquiry:

To examine the maintenance arrangements for the borough's footways and carriageways with reference to:

- **Funding** – the relationship between funding and performance
- **Management** – the process for identifying, prioritising and tackling maintenance work
- **Costs** – the long term implications of current policy in terms of future public sector costs due to remedial works, insurance claims and any other costs.
- **Options** – alternatives to existing arrangements.

Provide an initial view as to how this review could lead to efficiencies, improvements and/or transformation:

Provide an evidence base for future investment opportunities.

1.0 Executive Summary

- 1.1 With approximately 836km (520 miles) of adopted highway within the Borough of Stockton footway and highway maintenance is high on Stockton Borough residents' agenda.
- 1.2 Highway and footway condition is generally rated between 1 and 5, with 1 being brand new and 5 being the worst thus meaning they require some form of remedial treatment. At the time of this review there were 457 highway and footways rated as 5 following inspections from the Council's Highway Inspectors and independent external condition surveys. Approximately 65km of carriageway within the Borough require surfacing works either in the near future or investigation for possible maintenance schemes.
- 1.3 The funding from government grants and additional Council revenue provides an investment programme of £9m over the next three years. The additional funds whilst allowing an increase in the number of resurfacing/structural patching schemes with the Borough has also enabled other highway maintenance treatments to be increased / introduced / trialled.
- 1.4 The following table was provided to the Committee to highlight, where known, the notional level of cost savings or additional repair coverage that can be achieved with the new techniques set against the cost of a traditional pothole repair (as per Department for Transport Guidelines) which is approximately £50 per square metre. Velocity savings are modelled on what could have been saved in 2013/14 if this was used to repair all potholes.

Technique	Savings	Additional area (sqm)	Additional Linear (metres)	Additional Pothole Repairs
Texture Blast	£37,098	12,800	1,969	
Ulti-Fastpath	£91,686	4,500	2,500	
Velocity	£32,352	-	-	1,800
PMB	£14,988	2,264	411	
Total	£176,124	19,564	4,880	1,800

- 1.5 The Committee support the use of each alternative method and recognise they are used to treat a variety of issues as there is no single repair method available. They each provide a level of savings welcomed by the Committee who advocate their use.
- 1.6 With an average Velocity Patching repair costing £18 per square metre Members considered that this could provide a good invest to save opportunity if such services could be brought in-house or purchased with other Tees Valley authorities.
- R1 The Committee recommend that officers develop a business case to determine the viability and value of purchasing a vehicle to deliver a velocity patching service in-house or in collaboration with other Tees Valley local authorities.**

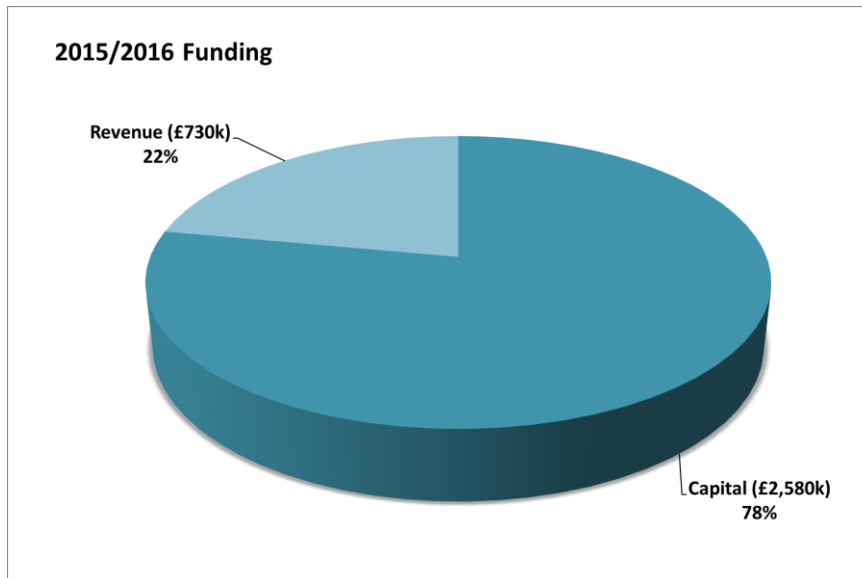
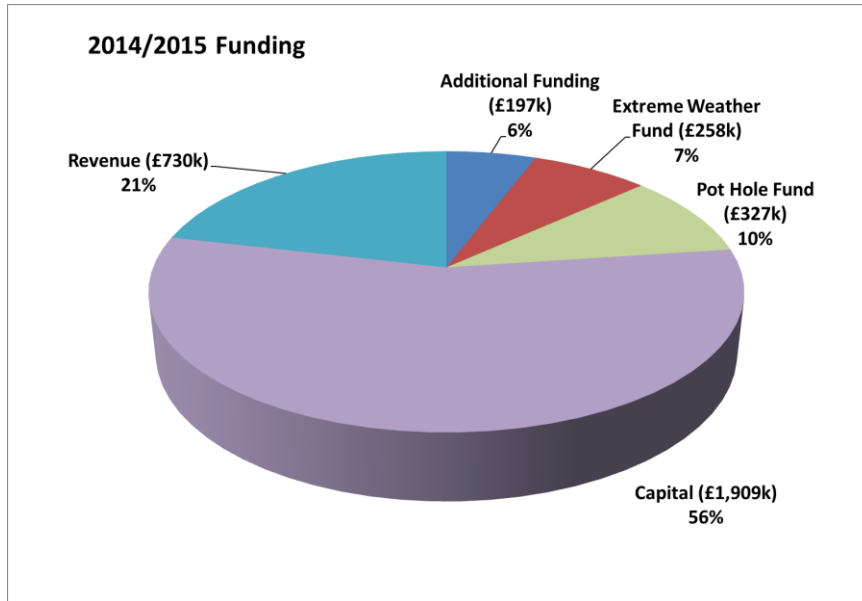
- 1.7 The Committee discussed the ‘find and fix’ advertising that had previously been used to inform residents/motorists about repairs being undertaken as a lot of work is undertaken without the recognition that might be expected.
- R2 The Committee recommend the consideration of a high profile marketing campaign to highlight the work of the Council in its repair of footpaths and highways as well as to improve the reporting of potholes.**
- R3 The Committee recommend that the Council publishes an article in Stockton News to inform residents of the alternative repair techniques being used and the levels of savings being achieved as an authority.**
- 1.8 The Committee also learned of suggested changes to highways maintenance funding that could be distributed to local highway authorities in England from April 2015 to March 2021. The Department for Transport want local highway authorities to have a 6 year programme to align with funding but SBC currently has a 2 year programme.
- R4 The Committee recommend that a 6-year highway maintenance programme is formulated to reflect the new funding period.**
- 1.9 It is proposed that the majority of funding would continue to be provided on a ‘needs basis’ and receive funding on the basis of the formula comprising information on key highway assets types. An element of funding would then be distributed on an ‘incentive basis’ with each local highway authority categorised based on where they are on an efficiency curve locating them within three bands. Band 3 authorities would receive the maximum level of funding available, whilst authorities in Band 1 in 2020/21 would receive no incentive funding at all.
- 1.10 The Committee was obviously interested to ascertain where Stockton Council would be located in the banding. It was the officers’ opinion that due to the on-going work during this review it would be hoped that the organisation would expect to be in Band 2 as it was keen to explore and utilise efficiency measures. The aspiration is to achieve Band 3 and therefore ensure the full level of incentive funding.
- 1.11 Members were subsequently keen to ensure that SBC wasn’t working in isolation and that the Council could develop and possibly learn from other local authorities. As SBC officers are part of a Tees Valley Highway engineers group, the North East Highway Alliance, and work closely with Durham County Council a high level of cooperation and shared learning already exists.
- R5 The Committee recommend that officers liaise with other local highway authorities to identify areas of best practice that may develop further efficiency opportunities.**

2.0 Introduction

- 2.1 Surveys indicate that footway and highway maintenance remains high on Stockton Borough residents' agenda, both in terms of what single one area the Council need to improve upon (42% - Residents Survey 2012) and what is the most important factor in determining whether a location is a good place to live (22% - Residents Survey 2012).
- 2.2 Despite targeted maintenance and significant investment 40% of respondents to the Residents Survey 2012 and 41% of respondents to the Viewpoint Survey 2013 indicating levels of dissatisfaction regarding carriageway and footway conditions in the borough. Respondents in the Northern Area had the highest level of highway maintenance dissatisfaction following the Residents Survey 2012 (49%) with Eastern Area respondents having the highest level of highway maintenance dissatisfaction following the Viewpoint Survey 2013 (46%).
- 2.3 On 9 October 2014 Cabinet was presented with a report to consider the best use of additional resources that had been secured through a government grant towards road maintenance activities and how resources could continue to be targeted to support the most localised solutions funded through the community participation budget until its demise March 2015. The report set out the intention of a £9m investment in highway and footpath maintenance activities including small community participation projects until 2018.

3.0 Background

- 3.1 The most recent Whole Government Accounting figures (2012/13) show a total gross replacement cost of all carriageways and footpaths within the Borough to be approximately £1,123,838,000. Funding needed to bring defective carriageways up to an acceptable standard is approximately £49 million.
- 3.2 Stockton Council's community participation programme has been used to fund a variety of projects ranging from small engineering schemes that improve the function of the space on or adjacent the highway or small projects that improve the local amenity space.
- 3.3 In 2013/14 the Council received additional funding from government to help accelerate improvements to road and footpath maintenance which remains a clear priority for residents. Cabinet recommended the use of funding from the previously approved £5.89M allocation to support future investments thereby supporting the continuation of the community participation budget during 2015-16 and 2016-17 (£400K per year) from the approved Medium Term Financial Plan allocation for investment to use on local highway and environmental improvements.
- 3.4 The following graphs show Stockton Council's Highway Network Maintenance funding for 2014/15 and 2015/16.



- 3.5 Local Transport Capital Block Funding allocation for Highway Maintenance within Stockton was £1,909,000 the majority of which is utilised to undertake resurfacing schemes across the different carriageway classifications previously mentioned. Revenue budgets for maintenance schemes for 2014/15 totalled approximately £730k.
- 3.6 Additional funding mechanisms have since become available. The first received was £197k which was the final payment of a 2-year additional maintenance funding grant from government. Following the extreme weather during winter 2013 a further grant of £258k was allocated to assist local highway authorities in repairing accelerated damage to the local road network. More recently a £168 million 'Pothole Fund' was made available nationally to assist local highway authorities in England repair damage to the local road network and following a robust bid process £327,974 was secured from this fund. In total an additional £782k of funding was secured from government grants.
- 3.7 The additional funds whilst allowing an increase in the number of resurfacing/structural patching schemes with the Borough has also enabled

other highway maintenance treatments to be increased / introduced / trialled. These include:

- Increased white/yellow line maintenance.
- Additional surface water drainage system cleaning and verge works.
- Increased pot-hole repairs undertaken both internally and by external contractors.
- Traffic Calming / Speed Hump mass action replacement.
- Texture Blast treatments of roundabout with sub-standard skid resistance.
- Joint and Crack Sealing maintenance programme.
- Mass replacement of 'cats-eyes' in rural locations.

3.8 The Council's Regeneration and Transport Select Committee was asked to consider the priorities for additional funding allocated for roads and footpaths with the aim of determining:

- Where the investment should be targeted.
- What additional resource can potentially achieve.
- The level of investment required in future years.
- What else could be achieved?

4.0 Evidence

4.1 Highway and footway condition is generally scored on a scale from 1 (the best) to 5, the worst and therefore requiring some form of remedial treatment. At the time of this review there were 457 highway and footways rated as 5 following inspections from the Council's Highway Inspectors and independent external condition surveys. Approximately 65km of carriageway within the Borough require surfacing works either in the near future or investigation for possible maintenance schemes.

4.2 This will be further exacerbated as a result of more frequent extreme weather events. In addition, natural traffic growth and traffic associated with additional developments will further increase the rate of deterioration. A further concern of insufficient funding to maintain/improve the condition of the highway is the potential for an increase in third party claims being made against the Authority.

4.3 A two-year highway maintenance programme has been developed and was introduced for 2014/15 and 2015/16. This extended programme enables more certainty to be given to councillors in relation to what schemes will be undertaken within their respective wards, gives a longer term identifiable work programme for internal and external providers thus enabling better planning, as well as allowing officers to be more specific to residential queries that are regularly received.

4.4 In the current economic climate, it is imperative that all resources are given maximum leverage and ensure value for money. The Committee was eager to learn how officers were assessing alternative and innovative methods of maintenance that can work towards ensuring more can be done for less money, whilst at the same time ensuring longevity as far as it practicable, reducing material costs and traffic management requirements thus providing a safer highway network, fewer accidents and subsequent claims against the authority.

4.5 The Committee took evidence about viable options that have been utilised in trials and should further funding become available could be used more extensively to enable additional works to be undertaken on those footways

and carriageways in the Borough needing remedial treatments. The options currently being considered are detailed below:

Texture Blast



- 4.6 Texture Blast retexturing reduces the need for the complete re-installation of new road surfaces by rejuvenating existing carriageways. This method uses steel shot blasted at velocity on the carriageway to restore skid resistance properties by re-profiling and abrading the aggregate whilst removing debris and dust from the road surface. By increasing the texture this process improves significantly skid resistance levels of the road surface to in excess of when the materials were first laid. Longevity is dependent on volume and type of traffic using the carriageway, but typically it can increase levels for a period of between 2 – 3 years.
- 4.7 The Committee was keen to determine whether texture blasting would then be repeated or was the process simply delaying the need to resurface? Members were informed that texture blasting can be repeated and this could be undertaken several times but it is dependent on what other deterioration has taken place to determine its use. It therefore gives the asset life extension as opposed to a full repair.
- 4.8 This method had recently been trialled on three roundabouts in Ingleby Barwick which had skid resistance levels below those expected and considered to be substandard. Following the treatment Laboratory Services carried out additional testing and results showed the standard of road resistance had significantly improved and was well above what would be acceptable. The table below shows the savings made by utilising Texture Blast as opposed to a traditional asphalt scheme.

Roundabouts	Area of Carriageway	Traditional Asphalt	Texture Blast	Saving
Thornaby Road/Ingleby Way	1535	£17,652	£4,452	£13,200
Ingleby Way/Myton Way	1500	£17,250	£4,357	£12,893
Barwick Way/Sober Hall	1280	£14,720	£3,715	£11,005
Total	4315	£49,622	£12,524	£37,098

- 4.9 With the levels of saving that could be achieved the Committee enquired whether this could be used on more road systems e.g. full length roads. As its function is to provide skid resistance its use is fairly restricted but it could be considered on the approaches to junctions where skid resistance levels may need to be improved.

4.10 A particular advantage for its use is the time taken to undertake the treatment in which repairs can be applied thus minimising the inconvenience to motorists. In Ingleby Barwick the roundabouts were treated on a Sunday to limit the number of affected drivers and roads also remained open as only one lane was closed at a time.

UltiFastpath



4.11 This product applies a single layer (25mm to 70mm) negating the need for both a base and surface course so no asphalt regulating layer is required. This subsequently reduces the amount of manpower required, the resources and costs and a faster construction minimises disruption to pedestrians, residents and road users. This method has been utilised wherever possible, and the table below shows the monetary savings which could be realised using this method of resurfacing as an alternative to the standard two layer approach had it been used since 2012.

Year	Area of Footpaths (m)	Traditional Method	UltiFastpath	Savings
2012/13	17900	£740,000	£666,073	£73,927
2013/14	19850	£786,200	£704,219	£81,981
2014/15	22200	£729,000	£637,314	£91,686
Total	59950	£2,255,200	£2,007,606	£247,594

Surface Dressing



4.12 This is a well-used method of carriageway surfacing where a bitumen emulsion and appropriate chippings are applied to the existing road surface. Surface dressing is used to prolong the life of an existing carriageway for up to a further 5 – 8 years before full resurfacing would generally then be required. In addition to improving the appearance of the road it also seals the road from the ingress of water, thus preventing structural damage in addition to improving the skid resistance. A number of years ago several schemes were undertaken utilising this method and there is potentially further opportunities to utilise this method for future schemes where appropriate.

- 4.13 Members were informed that this process hasn't been used in the past 3-4 years so the levels of savings were not known. The process tends to be used in rural locations and not in urban areas.

Velocity Patching



Before



After

- 4.14 Generally the council has repaired potholes utilising internal revenue sources. Potholes which are left unrepaired can significantly contribute to the failure of a carriageway by allowing the ingress of water which can undermine the structural integrity of the road surface, lead to a more substantial resurfacing scheme and thereby quicken the need for repair.
- 4.15 Velocity Patching is an external pothole repair company that carries out 'super-fast' pothole repairs at a reduced cost compared with conventional methods. It stipulates that the method of pothole repair is a fast, first time, permanent fix approach, resulting in fewer repeat visits being necessary. The repair can be undertaken in approximately two minutes, meaning reduced need for traffic management, improved public perception and significantly more pothole repairs can be undertaken in just one day.
- 4.16 The cost of a traditional pothole repair (as per Department of Transport Guidelines) is approximately £50 per square meter, with an average Velocity Patching repair costing £18. Officers recently commissioned a trial using Velocity Patching and initial impressions were that this was a method worthy of further investment. The table below shows what area of pothole repair was undertaken by the Council between April 2013 – March 2014 and April 2014 – to date, together with the respective cost comparisons:

Year	Area of Potholes (sqm)	Traditional Repair	Velocity	Saving (£)
2013/2014	5485	£274,250	£98,730	£175,520
2014 to date	3007	£150,350	£54,186	£96,164
Total	8492	£424,600	£152,916	£271,684

- 4.17 The Committee was interested to determine how experimental the new techniques were and learnt that although it is a temporary measure prior to the need for resurfacing Velocity Patching can extend carriageway lifespan by repairing a small section that could be at scale 5 thereby reducing overall a larger amount of carriageway to scale 3.
- 4.18 With an average Velocity Patching repair costing £18 per square meter Members considered that this could provide a good invest to save opportunity if such services could be brought in-house or purchased with other Tees Valley authorities. Evidence provided to the Committee was of East Cheshire

Council experimenting with Velocity Patching to repair a large amount of road resulting in positive feedback. East Cheshire had worked in collaboration with other LAs. It therefore seemed feasible that one LA could purchase the equipment and hire it to neighbouring LAs to ensure it was fully utilised.

- R1 The Committee recommend that officers develop a business case to determine the viability and value of purchasing a vehicle to deliver a velocity patching service in-house or in collaboration with other Tees Valley local authorities.**

Joint / Crack Sealant



- 4.19 This is a pro-active maintenance measure used mainly on concrete carriageways which seals surface joints and cracks to prevent the ingress of water in to the substructure. If left untreated this is likely to lead to accelerated damage, especially during the winter period where there is increased risk of the 'freeze / thaw' effect.
- 4.20 This is a hot applied road and footpath over-band surface crack repair solution, providing a quick fix with minimum disruption. As it cools extremely quickly road closures are not necessary so reducing frustration to motorists.
- 4.21 At the time of this review it had only recently been trialled so no calculation of cost savings were available but as the joint repair reduced the need to resurface the road savings were expected. A trial of this method was due to be undertaken and if successful a programme would likely be considered subject to available funding.

Flexi Pave



- 4.22 Flexi Pave uses recycled car tyres as a core material bonded with polyurethane that is constantly able to flex. Its high porosity combined with

the flexible properties makes it useable for footpaths, tree surrounds, driveways, and access paths.

- 4.23 The product, which gained approval by the Committee for its improved appearance, allows for quick and efficient drainage of water directly into the ground, aiding the natural replenishment of water levels. It requires very little maintenance, and negates the need for planning permission. Flexi-Pave can be used on:
- Pavement Systems
 - Car parks
 - Trail Paths

Poly-modified Binder



Before



After

- 4.24 By changing the characteristics of normal bitumen with the addition of a polymer, the bitumen allows the mixture to be more cohesive, with much more strength and significant higher resistance to wear and tear. This method of resurfacing was used on an estate in the borough where complaints had been received from residents regarding the condition of the carriageway. Following the road resurfacing a feedback survey of residents recorded a 99 per cent satisfaction rating.
- 4.25 PMB's qualities are listed as providing greater rigidity, better resistance to permanent deformation, higher resistance to spreading cracks, greater water resistance, and higher durability. Of particular interest to Members other than the improved appearance shown above was the £14,988 savings PMB offered whilst providing 2,264 additional square meter coverage.
- 4.26 With a life expectancy of 10-15 years the Committee was interested to learn whether this method could be used on main roads in the borough. Members were informed that it had been utilised along Yarm High Street so evidence shows that it is another option available to the Council if appropriate.

Other Comments

- 4.27 As was highlighted in the introduction Resident / Viewpoint surveys regularly show potholes and road and footpath conditions are high on people's agendas. In the 2012 Resident's Survey there was 31% dissatisfaction (Eastern Area) and 46% in the Viewpoint Survey 2013. Opinion in one area of service delivery can disproportionately affect the view of the Council as a whole and therefore needs to be addressed.

- 4.28 The Committee discussed the 'find and fix' advertising that had previously been used to inform residents/motorists about repairs being undertaken. A lot of repair work is undertaken without the recognition that might be expected. Find and Fix was a simple series of A-Boards which identified the Council was carrying out work which raised awareness and could increase public satisfaction levels. Members identified it could also have a negative perspective if footpaths took a long time between the start and completion of works due to delays in getting the required equipment on site.
- R2 The Committee recommend the consideration of a high profile marketing campaign to highlight the work of the Council in its repair of footpaths and highways as well as to improve the reporting of potholes.**
- R3 The Committee recommend that the Council publishes an article in Stockton News to inform residents of the alternative repair techniques being used and the levels of savings being achieved as an authority.**
- 4.29 Irrespective of what materials are used the Committee wanted to ensure that the level of investment in road and footpath surfaces was not undermined by the needs of utility companies undertaking work which involved breaking up the carriageway surface. Members were informed that following resurfacing works there is a period when utility providers are prohibited from carrying out work unless it is an emergency. Even after this time period has elapsed carriageways must be reinstated to an acceptable level and follow Council protocols. A percentage of repairs are checked but not all. In addition, there is a warranty period on repairs after which it becomes the responsibility of the local highway authority.
- 4.30 Also of interest was the number of third party claims against the Council for alleged injuries sustained in the borough following road traffic collisions, vehicle damage, or trips/falls on the adopted highway network associated with the potential lack of highway maintenance. Evidence given to the Committee included awareness of a case which SBC were successful in defending during the period of this review which highlighted that genuine and spurious claims come forward and this year (2014/15) there have been no successful claims made against the Council heard at court.
- 4.31 The Committee was informed that it was imperative that the Council have a robust inspection regime which adheres to national standards as this forms the basis of any Section 58 defence. The personal injury element is quite small but the legal fees can be considerable. At any one time there can be a significant monetary value of claims against the Council. The Committee welcomed the diligence of all officers involved in the inspection process as well as of those defending the authority against false claims.

Local authority highways maintenance funding: 2015/16 - 2020/21

- 4.32 On 23 December 2014 the Transport Secretary announced a £5.8 billion fund to help tackle potholes and improve local roads between 2015 and 2021. Of that £4.7 billion will be allocated according to a needs-based formula.
- 4.33 An incentive fund element has also been introduced starting in 2016/17 which incentivises the principals of good asset management and efficiencies and reward councils that demonstrate they are delivering value for money in carrying out cost effective improvements. Such demonstration of budgetary prudence needs to be shared with local residents in order to address

Department for Transport expectations of improved communication with residents.

- 4.34 The allocations for each element were as a result of the consultation on highways maintenance funding which allocated a proportion of the total funding to four elements in the following proportions, derived from the Whole of Government Accounts:

Roads	75%
Split evenly between:	
A roads	25%
B and C roads	25%
U roads	25%
Bridges	14%
Lighting	2%
Cycleway and Footways	9%

- 4.35 The North East region was given £267,992,000 to help maintain and repair the roads in their areas including fixing potholes.

Hartlepool Unitary Authority	£6,185,000
Middlesbrough Unitary Authority	£9,558,000
Redcar and Cleveland Unitary Authority	£11,030,000
Stockton-on-Tees Unitary Authority	£13,466,000
Darlington Unitary Authority	£9,072,000
North East Combined Authority	£218,681,000
- County Durham Unitary Authority	£62,043,000
- Northumberland Unitary Authority	£91,049,000
- Gateshead	£14,299,000
- Newcastle upon Tyne	£14,166,000
- North Tyneside	£11,784,000
- South Tyneside	£8,083,000
- Sunderland	£17,258,000

Incentive mechanism

- 4.36 A local authority's category will be based on the responses to a self-assessment exercise on efficiency. Each local highway authority will be categorised based on where they are on an efficiency curve and established the following categories:

- Band 1: Early stage authority
- Band 2: Mid stage authority
- Band 3: Final stage authority

- 4.37 The year by year funding element basis is detailed below. For Band 3 authorities the curve would deliver the maximum level of funding available to the authority, whilst authorities in Band 1 in 2020/21 would receive no incentive funding at all.

Year	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Band 1	100%	90%	60%	30%	10%	0%
Band 2	100%	100%	90%	70%	50%	30%
Band 3	100%	100%	100%	100%	100%	100%

- 4.38 After the year 1 (2015-16) data collection exercise each local authority will be informed of their banding; although in this year every local highway authority

will receive its full share of efficiency funding, regardless of banding. From 2016-17 the efficiency incentive funding will begin to reflect uptake in efficiency measures. For band 3 local authorities receiving the maximum funding it is expected that continuous improvement will be maintained, otherwise there is a risk that they will drop to a lower band.

4.39 It is proposed that the majority of funding would continue to be provided on a 'needs basis' and receive funding on the basis of the formula comprising information on key highway assets types. An element of funding would then be distributed on an 'incentive basis' with each local highway authority categorised based on where they are on an efficiency curve locating them within three bands. Band 3 authorities would receive the maximum level of funding available, whilst authorities in Band 1 in 2020/21 would receive no incentive funding at all.

4.40 The Committee was obviously interested to ascertain where Stockton Council would be located in the banding. It was the officers' opinion that due to the on-going work during this review it would be hoped that the organisation would expect to be in Band 2 as it was keen to explore and utilise efficiency measures. The aspiration is to achieve Band 3 and therefore ensure the full level of incentive funding.

4.41 The Department for Transport is keen for local highway authorities to have a 6-year programme which is aligned to the funding period. SBC currently operates a 2-year programme. The Committee is cognizant that there are enough carriageways and footpaths for a 6-year plan as being suggested by DfT.

R4 The Committee recommend that a 6-year highway maintenance programme is formulated to reflect the new funding period.

4.42 The recommendation is mindful of the Council's budget setting process and Members want to retain the delegation process that exists for budgetary decisions to ensure continued flexibility when determining the priority of repairs required in the borough.

4.43 Members were subsequently keen to ensure that SBC wasn't working in isolation and that the Council could develop and possibly learn from other local authorities. As SBC officers are part of a Tees Valley Highway engineers group, the North East Highway Alliance, and work closely with Durham County Council a high level of cooperation and shared learning already exists.

R5 The Committee recommend that officers liaise with other local highway authorities to identify areas of best practice that may develop further efficiency opportunities.

4.44 A new £575million six-year Challenge Fund has been introduced for large-scale maintenance projects with a minimum value of £5million. Deadline for bids for Tranche 1 (2015/16 – 2017/18) has recently passed and Stockton have submitted a major carriageway reconstruction project with associated drainage improvements.

5.0 Conclusions

5.1 Highways are our most valuable asset and are vital to the economic, social and environmental well-being of the borough. Managing highways is a critical

challenge to local highway authorities which have to manage an ageing network with high public expectations and often less resourcing.

- 5.2 Surfaces are generally deteriorating faster than authorities can make repairs and increasing spells of extreme weather, from cold snaps to flooding are only making the situation worse. Highways need regular routine maintenance to perform at optimum levels and failure to undertake this can lead to a more rapid decline of the asset. In light of this it is imperative that the right interventions are undertaken at the correct time to prevent larger scale problems occurring in the future. Even more important is to ensure that the maintenance measures undertaken are the correct ones as this will minimise the risk of continuous costs.
- 5.3 As has been shown to the Committee and evidenced in this report a variety of innovative techniques are now being used or piloted by officers to ensure that value for money is maximised. In addition, efficiency savings are or can be made thus enabling more to be delivered across the borough ensuring as far as is practicable a highway network that is in the best possible condition given the resource constraints.
- 5.4 Whilst there are clear business cases for some of the various methods others will require both financial and technical appraisals before reaching a conclusion. Adequate resources are needed in order to achieve robust solutions which in turn deliver value for money and tackle the ever increasing maintenance issues, with short term investments only ever achieving a short term solution. What is to be avoided is the zero-sum game where any level of grant loss is equal to the amount that can be saved from utilising innovative methods so the net change is zero.

APPENDIX 1

Compilation of alternative schemes and cost savings

Texture Blast

Roundabouts	Area of Carriageway	Traditional Asphalt	Texture Blast	Saving
Thornaby Road/Ingleby Way	1535	£17,652	£4,452	£13,200
Ingleby Way/Myton Way	1500	£17,250	£4,357	£12,893
Barwick Way/Sober Hall	1280	£14,720	£3,715	£11,005
Total	4315	£49,622	£12,524	£37,098

UltiFastpath

Year	Area of Footpaths (m)	Traditional Method	UltiFastpath	Savings
2012/13	17900	£740,000	£666,073	£73,927
2013/14	19850	£786,200	£704,219	£81,981
2014/15	22200	£729,000	£637,314	£91,686
Total	59950	£2,255,200	£2,007,606	£247,594

Velocity Patching

Year	Area of Potholes (sqm)	Traditional Repair	Velocity	Saving (£)
2013/2014	5485	£274,250	£98,730	£175,520
2014 to date	3007	£150,350	£54,186	£96,164
Total	8492	£424,600	£152,916	£271,684

Poly-modified Binder

Area of Carriageway	Traditional	Alternative	Savings
17839 sqm	£133,080	£118,092	£14,988